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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/601,004 | 06/19/2003 | Anthony Edward Kelly | KEMP-002 | 5763 |
| 28661 | 7590 | 12/29/2004 | EXAMINER | |
| SIERRA PATENT GROUP, LTD. P O BOX 6149 STATELINE, NV 89449 | | | PALMER, PHAN T H | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2874 | |

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/601,004

Applicant(s)

KELLY ET AL.

Examiner

PHAN T.H. PALMER

Art Unit

2874

Am

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-30 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 8-17 is/are rejected.
- 7) ☐ Claim(s) 5-7 is/are objected to.
- 8) ☐ Claim(s) 18-30 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Phan T. H. Palmer
PHAN T. H. PALMER
PRIMARY EXAMINER
12/26/2004

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's cooperation is requested in correcting any error of which applicant may become aware in the specification.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

3. The information disclosure statement submitted on 06/19/2003, has been considered by the examiner and made of record. See attached form PTO-1449.

Drawings

4. This application has been filed with formal drawings.

Claim Objections

5. Claims 16, and 28 are objected to because of the following informalities: the end of claims 16 and 28 should have period (.). Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, and 8-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Forrest et al. (6,381,380 B1).

The Forrest et al. reference discloses in figures 4, a semiconductor optical device (11) comprising:

- an active waveguide (71) having a tapered portion (81); and
- a passive waveguide (61) extending beyond the end of the active waveguide and optically coupled to the tapered portion of the active waveguide, the passive waveguide beyond the end of the active waveguide supporting an optical mode of larger size than the optical mode supported by the active waveguide,
- wherein the tapered portion of the active waveguide is truncated and the active waveguide and the passive waveguide have a separation is 0.5 μm .

With regard to claims 1-4, and 8-17, the Forrest et al reference discloses all the claimed invention. See figure 4, abstract lines 17-20, col. 6, lines 16-49.

Allowable Subject Matter

7. Claims 5-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The Forrest et al reference does not disclose the limitations of claims 5-7.

Claims 18-30 are allowed.

The Forrest et al reference does not disclose a semiconductor optical device comprising:

- an active waveguide having a tapered portion; and
- a passive waveguide extending beyond the end of the active waveguide and optically coupled to the tapered portion of the active waveguide, the passive waveguide beyond the end of the active waveguide supporting an optical mode of larger size than the optical mode supported by the active waveguide,
- wherein the tapered portion of the active waveguide is truncated and the separation between the active waveguide and the passive waveguide provides a coupling loss between the active waveguide and the passive waveguide which is at most 0.1dB above the minimum coupling loss provided by a device having the same construction except with an optimum separation between the active waveguide and passive waveguide which minimizes the coupling loss between the active waveguide and the passive waveguide.

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CONTACT INFORMATION

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHAN T.H. PALMER whose telephone number is (571) 272-2354. The examiner can normally be reached on 4/4 OFF MONDAY.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RODNEY B. BOVERNICK can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PTHP
12/26/2004


PHAN T. H. PALMER
PRIMARY EXAMINER